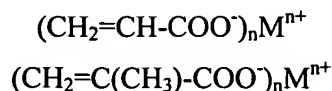
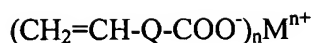


### In the Claims

1. (currently amended) A method for the radiation grafting of a compound  
5 that can be grafted onto a fluoropolymer, so as to prevent destabilization of the fluoropolymer, comprising the following steps:
- a) melt blending the fluoropolymer ~~is melt-blended~~ with a graftable compound;
  - b) forming the blend obtained at a) ~~is formed~~ into films, sheets,  
10 granules or powder;
  - c) subjecting the products from step b) ~~are subjected~~ to photon ( $\gamma$ ) or electron ( $\beta$ ) irradiation with a dose of between 0.5 and 15 Mrad; and
  - d) optionally, subjecting the products from step c) ~~are subjected~~ to a washing and/or a degassing operation,  
15 ~~and in which~~ wherein a stabilizer is blended into the fluoropolymer either before or after the irradiation step.
2. (original) The method as claimed in claim 1, in which the stabilizer is blended into the fluoropolymer before the irradiation.  
20
3. (currently amended) The method as claimed in claim 2, in which the stabilizer is an antioxidant, a graftable metal salt or ~~else~~ a combination of the two.
4. (original) The method as claimed in claim 1, in which the stabilizer is an  
25 antioxidant blended into the fluoropolymer after the irradiation.
5. (original) The method as claimed in claim 4, in which a graftable metal salt is blended into the fluoropolymer before the irradiation.
- 30 6. (currently amended) The method as claimed in ~~one of claims 1 to 5~~ claim 1, in which the stabilizer is a graftable metal salt represented by one of the following formulae:





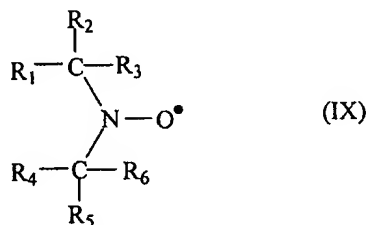
where Q denotes an optionally substituted, linear or cyclic, aliphatic or optionally substituted aromatic group and M denotes a metal cation of valence n, which may be chosen from  $\text{Ca}^{2+}$ ,  $\text{Na}^+$  and  $\text{Zn}^{2+}$ .

5

7. (original) The method as claimed in claim 6, in which the graftable metal salt is zinc undecylenate.

8. (currently amended) The method as claimed ~~in either of claims 4 and 5~~  
 10 claim 4, in which the content of graftable metal salt after step a) is 0.1 to 10%,  
~~preferably 0.1 to 5%~~, of graftable metal salt per 99.9 to 90%, ~~preferably 99.9 to~~  
 95%, of fluoropolymer.

9. (currently amended) The method as claimed in ~~claims 3 to 8~~ claim 3, in  
 15 which the antioxidant is an alkylated monophenol, an alkylated hydroquinone, an  
 alkylidene bisphenol, a benzyl compound, an acylaminophenol, a phosphite, a  
 phosphonite or a nitroxide of general formula:

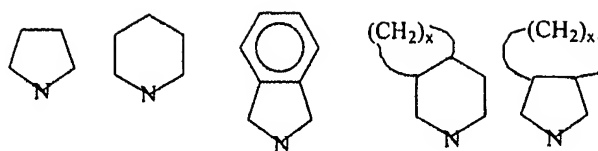


20 in which  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ ,  $\text{R}_4$ ,  $\text{R}_5$  and  $\text{R}_6$  denote:

- $\text{C}_1$ - $\text{C}_{20}$ , preferably  $\text{C}_1$ - $\text{C}_{10}$ , linear or branched alkyl groups, ~~such as methyl, ethyl, propyl, butyl, isopropyl, isobutyl, *tert*-butyl, neopentyl,~~ whether substituted or not;
- $\text{C}_6$ - $\text{C}_{30}$  aryl groups, whether substituted or not, such as benzyl or  $\text{C}_1$ -

25  $\text{C}_{30}$  saturated cyclic aryl(phenyl) groups,

and in which the  $\text{R}_1$  and  $\text{R}_4$  groups may form part of an  $\text{R}_1$ -CNC- $\text{R}_4$  cyclic structure optionally substituted, possibly chosen from:



in which x denotes an integer between 1 and 12.

10. (currently amended) The method as claimed in claim 9, in which the  
5 antioxidant is 2,6-di-*tert*-butyl-4-methylphenol, 2,6-di-*tert*-butylphenol (IRGANOX® 140), 2-*tert*-butyl-4,6-dimethylphenol, 2,6-di-*tert*-butyl-4-ethylphenol, 2,6-di-*tert*-butyl-4-n-butylphenol, 2,6-di-*tert*-butyl-4-isobutylphenol, 2,6-di-cyclopentyl-4-methylphenol, 2-( $\beta$ -methylcyclohexyl)-4,6-dimethylphenol, 2,6-di-octadecyl-4-methylphenol, 2,4,6-tri-cyclohexylphenol, 2,6-di-*tert*-butyl-4-  
10 methoxymethylphenol, o-*tert*-butylphenol, 2,6-dinonyl-4-methylphenol, 2,4-dimethyl-6-(1'-methylundecyl)phenol, 2,4-dimethyl-6-(1'-methylheptadecyl)phenol, tetrakis(3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)propionyloxymethyl)methane (IRGANOX® 1010), thiodiethylene bis(3,5-di-*tert*-butyl-4-hydroxyhydrocinnamate) (IRGANOX® 1035), or  
15 octadecyl-3,5-di-*tert*-butyl-4-hydroxyhydrocinnamate (IRGANOX® 1076).
11. (currently amended) The method as claimed in ~~one of claims 3 to 10~~ claim 3, in which the antioxidant content is 0.001 to 2%, ~~preferably 0.001 to 1%, per 99.999 to 98%, preferably 99.999 to 99%~~, of fluoropolymer.
- 20 12. (currently amended) The method as claimed in ~~any one of the preceding claims~~ claim 1, in which the fluoropolymer is PVDF.
13. (original) The method as claimed in claim 12, in which the PVDF contains  
25 at least 85% VDF by weight.
14. (currently amended) A structure comprising at least one layer of the fluoropolymer modified by radiation grafting prepared ~~as claimed in the method of any one of the preceding claims by the method of calim 1~~, and at least one layer of  
30 another material.
15. (currently amended) The structure of claim 14 comprising ~~Bottles~~ bottles,

tanks, containers, pipes, hoses, receptacles, films and packaging ~~produced with a structure of claim 14.~~

16. (currently amended) The structure of claim 14 comprising A structure  
5 ~~comprising~~ an inner layer in contact with the a fluid to be transported or stored,  
consisting of the fluoropolymer modified by radiation grafting ~~produced as~~  
~~claimed in any one of claims 1 to 13 and~~, directly attached thereto, a polyolefin or  
polyamide outer layer.

10 17. (currently amended) The structure as claimed in claim 16, ~~in which~~ further  
comprising a PVDF layer is placed beside the layer of fluoropolymer modified by  
radiation grafting.

18. (currently amended) The structure as claimed in ~~claim 16 or 17~~ claim 16, in  
15 which a functionalized ~~polyolefin~~ polymer layer is placed between the layer of  
fluoropolymer modified by radiation grafting and the polyolefin or polyamide  
layer, said functionalized ~~polyolefin~~ polymer having functional groups capable of  
reacting with the functional groups grafted onto the fluoropolymer.

20 19. (currently amended) The structure of claim 14 comprising A structure  
~~comprising~~ a layer consisting of the fluoropolymer modified by radiation grafting  
produced ~~as claimed in any one of claims 1 to 13~~ and placed between two  
polyolefin layers.

25 20. (original) The structure as claimed in claim 19, in which a functionalized  
polyolefin layer is placed between the layer of fluoropolymer modified by  
radiation grafting and one or both of the polyolefin layers, said functionalized  
polyolefin having functional groups capable of reacting with the functional groups  
grafted onto the fluoropolymer.

30

21. (cancelled)

22. (cancelled)

23. (cancelled)
24. (currently amended) The structure as claimed in ~~any one of claims 16 to 23~~  
5 claim 16, in which the inner layer in contact with the fluid to be transported or  
stored may contain carbon black, carbon nanotubes or any other additive capable  
of making the structure conducting in order to prevent the build-up of static  
electricity.
25. (currently amended) ~~A~~ The structure as claimed in claim 14 comprising an  
10 outer layer consisting of the fluoropolymer modified by radiation grafting  
~~produced as claimed in any one of claims 1 to 13~~ and, directly attached thereto, a  
layer of a substrate.
26. (original) The structure as claimed in claim 25, in which a PVDF layer is  
15 placed beside the layer of fluoropolymer modified by radiation grafting.
27. (currently amended) The structure as claimed in ~~claim 25 or 26~~ claim 25, in  
which a functionalized polymer layer is placed between the layer of fluoropolymer  
modified by radiation grafting and the substrate layer, said functionalized polymer  
20 having functional groups capable of reacting with the functional groups grafted  
onto the fluoropolymer, this functionalized fluoropolymer being compatible with  
the substrate.
28. (currently amended) A fluoropolymer onto which a graftable compound is  
25 radiation-grafted, said fluoropolymer being stabilized by one or more antioxidants  
or a graftable metal salt.
29. (currently amended) ~~A~~ The fluoropolymer as claimed in claim 28 wherein  
~~onto which a graftable compound is radiation-grafted~~, said fluoropolymer being  
30 stabilized by a graftable metal salt and by one or more antioxidants.
30. (cancelled) .
31. (cancelled)

32. (currently amended) The fluoropolymer as claimed in ~~one of claims 29 to 34~~ claim 28, in which the content of graftable compound grafted, that is to say linked to the fluoropolymer via a covalent bond, is 0.1 to 5%, preferably 0.1 to 2.5%, per 99.9 to 95.0%, preferably 99.9 to 97.5%, of fluoropolymer.

33. (currently amended) The fluoropolymer as claimed in ~~one of claims 29 to 32~~ claim 28, in which the content of grafted metal salt, that is to say that links to the fluoropolymer via a covalent bond, is 0.1 to 5%, preferably 0.1 to 2.5%, per 99.9 to 95.0%, preferably 99.9 to 97.5%, of fluoropolymer.

34. (currently amended) The fluoropolymer as claimed in ~~one of claims 29 to 33~~ claim 28, in which the graftable metal salt is zinc undecylenate, sodium undecylenate, or calcium undecylenate.

15

35. (cancelled)

36. (cancelled)

20 37. (currently amended) The fluoropolymer as claimed in ~~one of claims 28 to 36~~ claim 28, in which the fluoropolymer is PVDF.

38. (original) The fluoropolymer as claimed in claim 37, in which the PVDF contains at least 85% PDF by weight.

25